

ORIGINAL

**NORTEL  
NETWORKS**

www.nortelnetworks.com

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**AUG 19 1999**

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

**EX PARTE OR LATE FILED**

August 19, 1999

Ms. Magalie Roman Salas  
Secretary  
Federal Communications Commission  
445 Twelfth Street, S.W.  
Washington, DC 20544

**EX PARTE NOTICE**

**Re: Ex Parte File, In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability CC Docket No. 98-147; Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion CC Docket No. 98-147; Second Further Notice of Proposed Rulemaking in Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996 CC Docket No. 99-70**

Dear Ms. Salas:

Pursuant to the Commission's rules this letter provides notice that on August 18, 1999, Wayne Getchell, Nabil Gebrael, Julie Hedlund, and the undersigned all of Nortel Networks met with FCC staff members Stagg Newman, Doug Sicker, Vincent Paladini, Michael Jacobs, Jerome Stanshine, Margaret Egler, and Staci Pies. The subject of the meeting was the referenced proceedings. The meeting was convened at the request of FCC staff. The discussion was based on the enclosed presentations, copies of which were left with each of the FCC attendees.

If you have any questions, please call me.

Sincerely,

  
Raymond L. Strassburger  
Director, Government Relations-Telecom, Internet and  
Advanced Technology Policy

RLS/jh

Enclosures

cc: Stagg Newman, Office of Engineering and Technology  
Doug Sicker, Office of Engineering and Technology  
Jerome Stanshine, Office of Engineering and Technology  
Vincent Paladini, Common Carrier Bureau  
Michael Jacobs, Common Carrier Bureau  
Margaret Egler, Common Carrier Bureau

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*How the world shares ideas.*

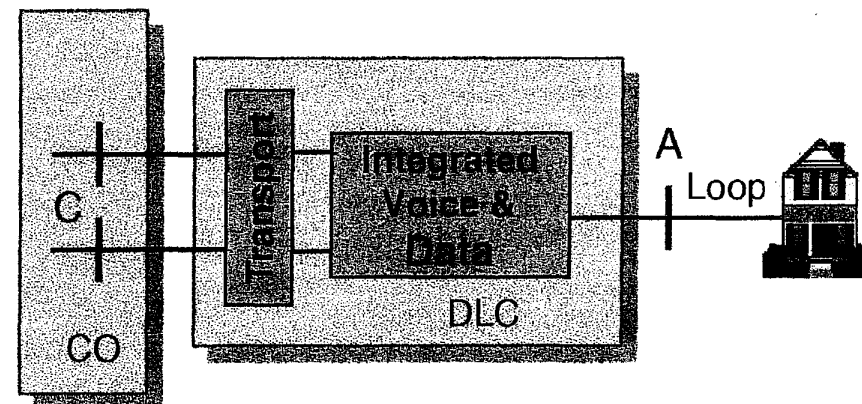
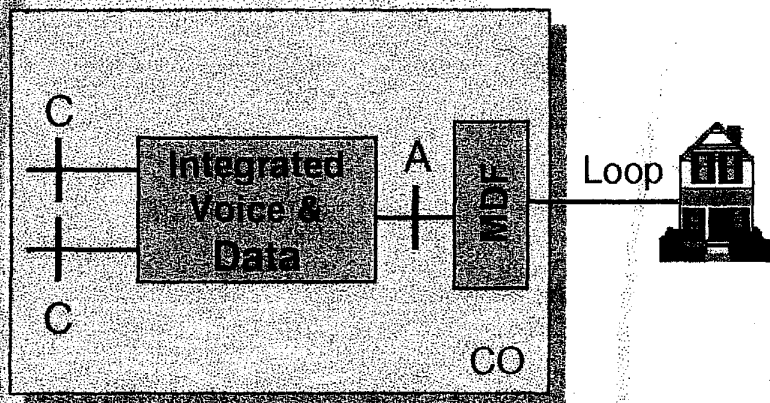
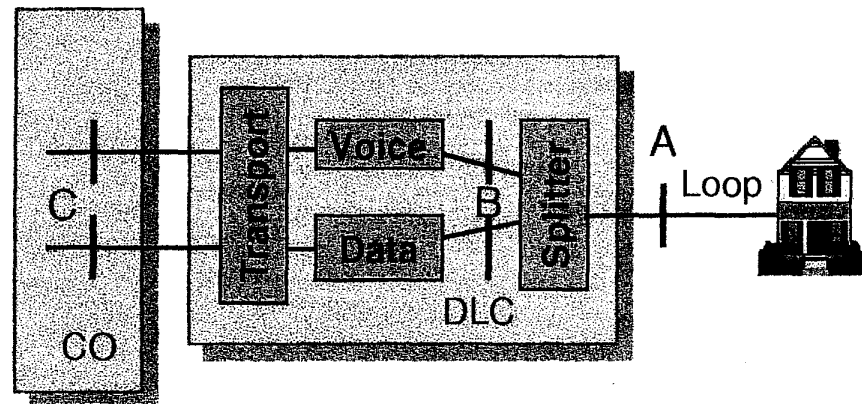
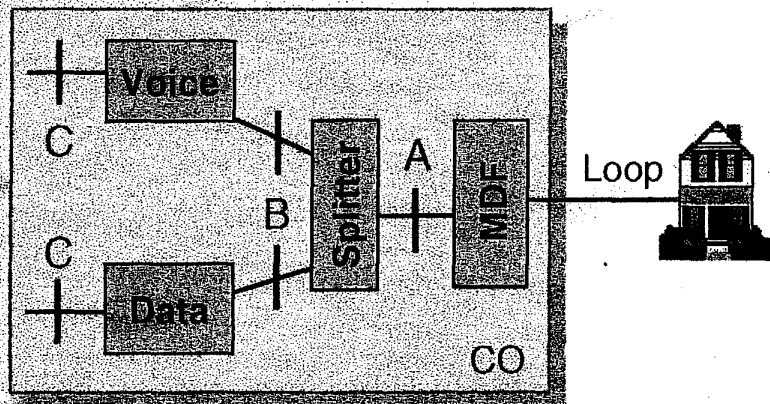
# **NORTEL NETWORKS**

***FCC Presentation  
Aug 18 , 1999***

**Author : Wayne Getchell  
Date : August '99**

# Loop Sharing Options

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## Options

- A** Loop Owner Wholesales Loop
- B** Loop Owner Wholesales Spectrum
- C** Loop Owner Wholesales Service

# Sharing Ownership and Issues

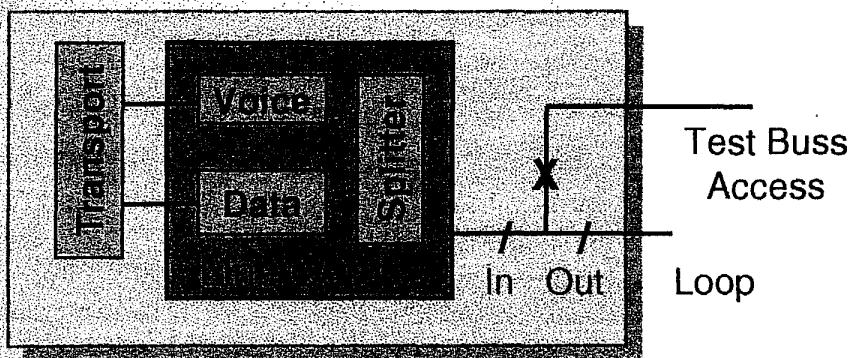
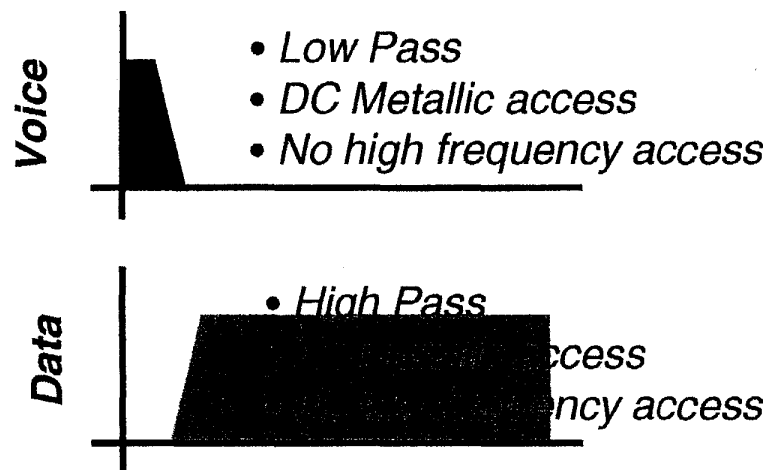
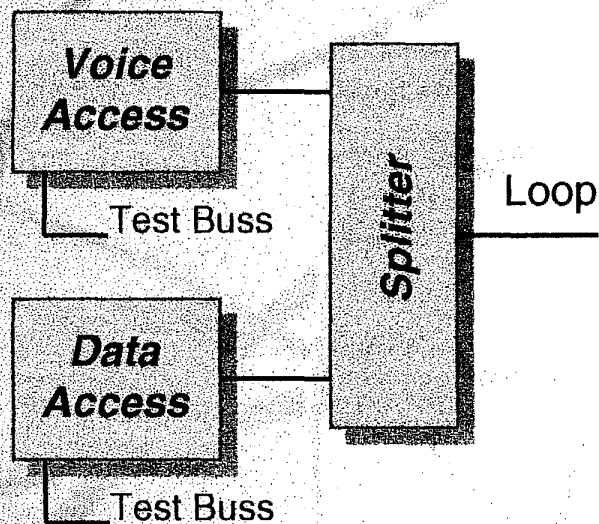
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	Loop Owner	Competitor	Issues
<b>A</b>	<ul style="list-style-type: none"><li>• Loop</li><li>• Maint / Quality</li><li>• SLA</li></ul>	<ul style="list-style-type: none"><li>• Tie Cabling</li><li>• All voice/data terminating equip.</li><li>• Aggregation &amp; routers at CO</li></ul>	<ul style="list-style-type: none"><li>• CO &amp; CLE testing limited through POTS splitter</li><li>• CLE - duplication of equipment and/or facilities, Cabinetry, Access mux, Transport etc. - space and cost constraints.</li></ul>
<b>B</b>	<ul style="list-style-type: none"><li>• Loop</li><li>• Splitter</li><li>• Maint / Quality</li><li>• SLA</li></ul>	<ul style="list-style-type: none"><li>• Tie Cabling to voice/data loop terminating equip.</li><li>• All voice/data term equipment</li><li>• Aggregation &amp; routers at CO</li></ul>	<ul style="list-style-type: none"><li>• Fault diagnostic and test complications</li><li>• CLE - duplication of equipment and/ or facilities, Access mux, Transport etc. - space and cost constraints.</li></ul>
<b>C</b>	<ul style="list-style-type: none"><li>• Loop</li><li>• Splitter</li><li>• Maint / Quality</li><li>• SLA</li><li>• Loop terminating equipment</li></ul>	<ul style="list-style-type: none"><li>• Aggregation &amp; routers at CO</li></ul>	<ul style="list-style-type: none"><li>• CLE - duplication of equipment and /or facilities, Access mux, Transport etc. - space and cost constraints.</li><li>• CLE - duplication of facilities, Access mux, Transport etc. - space and cost constraints.</li></ul>

# Splitters

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## Passive LC Voice / Data Splitter



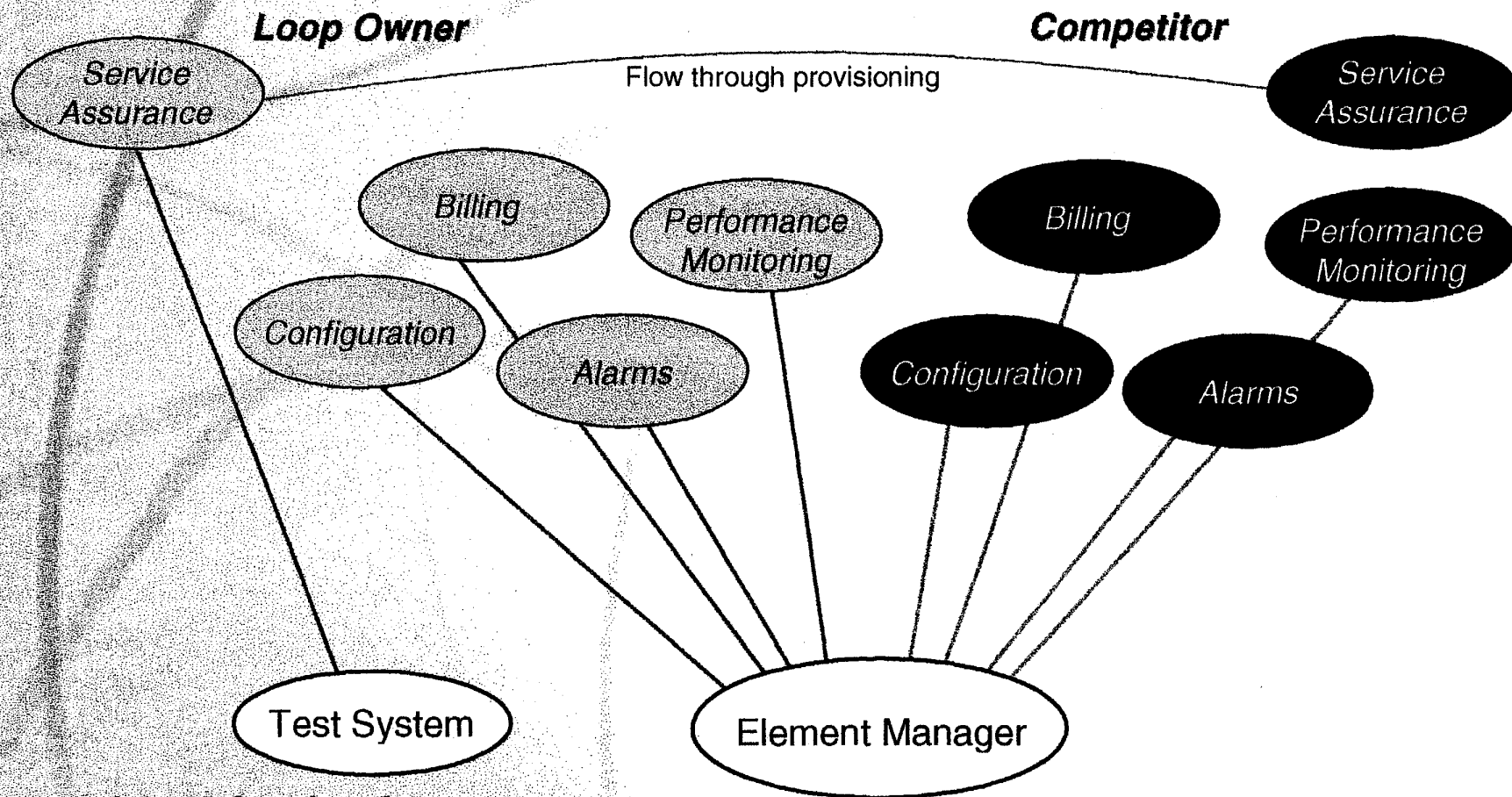
## Integrated Voice & Data Access

### Integrated Voice Data Test Access

- Full frequency test access to loop
- Metallic access
- Test IN and test OUT capability

# Loop Sharing OA&M Architecture **NORTEL NETWORKS™**

**Model for Integrated Voice & Data Sharing Loop and Sub-loop Unbundling**



## **OA&M Sharing Structure**

- Security & permissions is provided for multiple access to the element manager MIBS
- Element Mgmt structured to enables access for MIB sharing sharing



# Sharing Requirements

## Requirements to promote sharing

- Business Environment and or legislation supporting loop unbundling for both integrated and DSLAM offers
- OA&M infrastructure including standards to support loop sharing

## Additional Considerations

- Sharing is not possible on loaded loops
- SLA and maintenance remains the responsibility of the loop owner. This includes insuring for long term loop maintenance and safety. - basic DC parameters must be co-ordinated with the loop owner & include minimum and maximum loop voltage, and current (to provide sealing but within limits so as not to damage the loop or create hazard at service points in the outside plant.

## Not Typically Specified but important

- Support for service outside voice band typically (300Hz -3.4KHz loss, loss at 1KHz and slope to 3.4KHz -10 & -9dB on RDA loops and noise floor < 30dBmC noise to ground 90dBmC and max power on loop -9dBm over 3 sec. etc.).
- Loop quality (loss in data band )
- Interference ingress crosstalk limits in band (protection for competitor)
- Interference egress coupling limits in band (protection for loop owner)

# Quantified Value of Voice and Data Integration

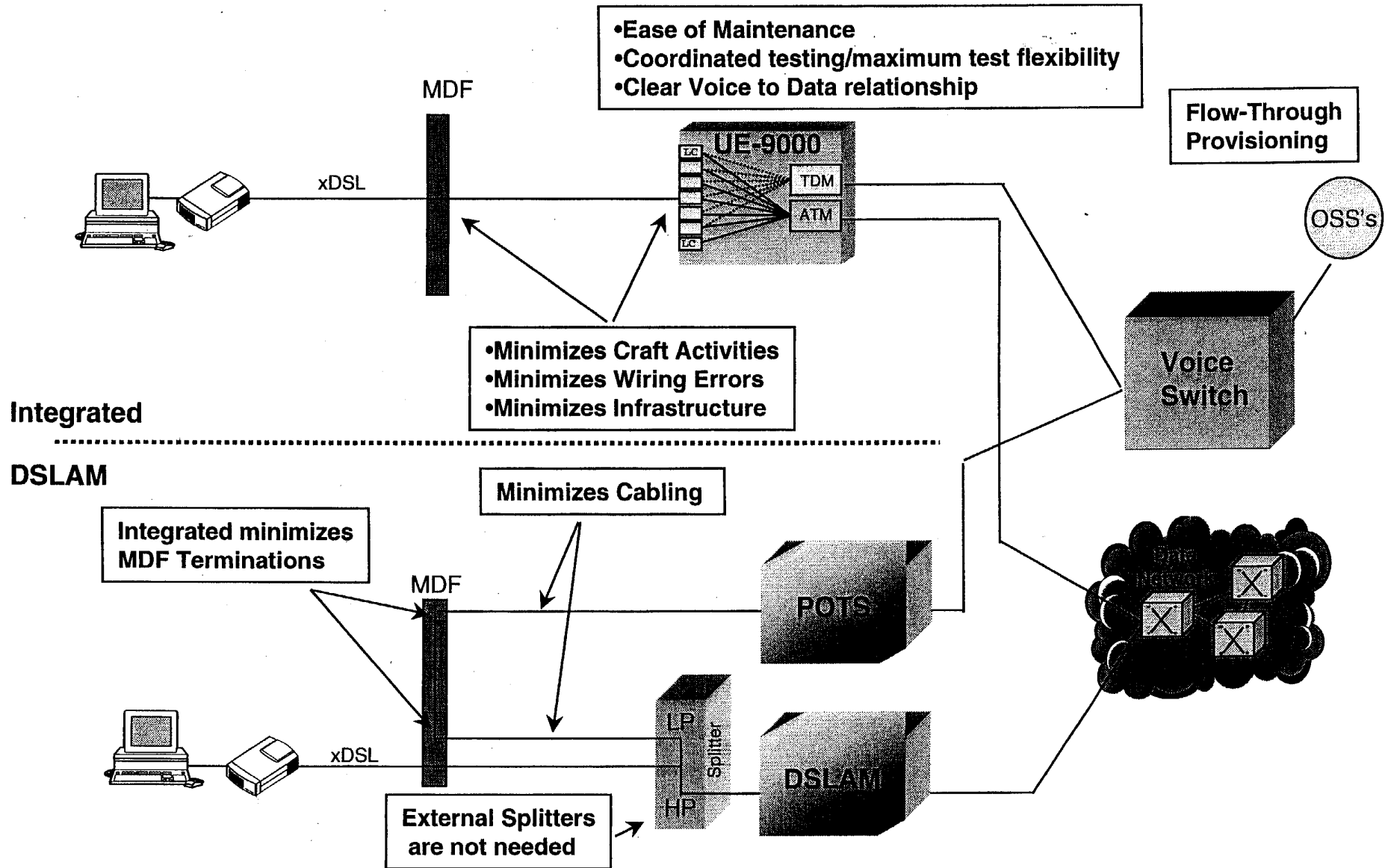
Cost Reduction Opportunity	Initial Savings	Recurring Savings
Voice and Data Combined in a Single Bay		
<i>less equipment</i>	\$50	
<i>H/W Installation savings</i>	\$18	
Service Provisioning		
<i>COSMOS ILC assignment</i>	TBD	TBD
<i>Single versus Double jumpering</i>	\$12	
Ongoing Maintenance		
<i>Fewer cable runs, loop testing</i>		
<i>on single test head simplifies maintenance</i>	\$21	\$21
TOTAL Savings per Line	\$101+	\$21+



# **Primary Values of an Integrated Line Card to provide ADSL and POTS Solutions**

- Reduced Capital Equipment Costs
- Redeployment of Existing Assets
  - Utilize vacated POTS equipment
  - Integrated testing of voice and data via single test head
- Re-use of existing C.O. service order processing and C.O plant assignment
- Flow-through Data Provisioning
- Reduced MDF wiring and Floor Space

# Value of Integrated Line Card in Central Office

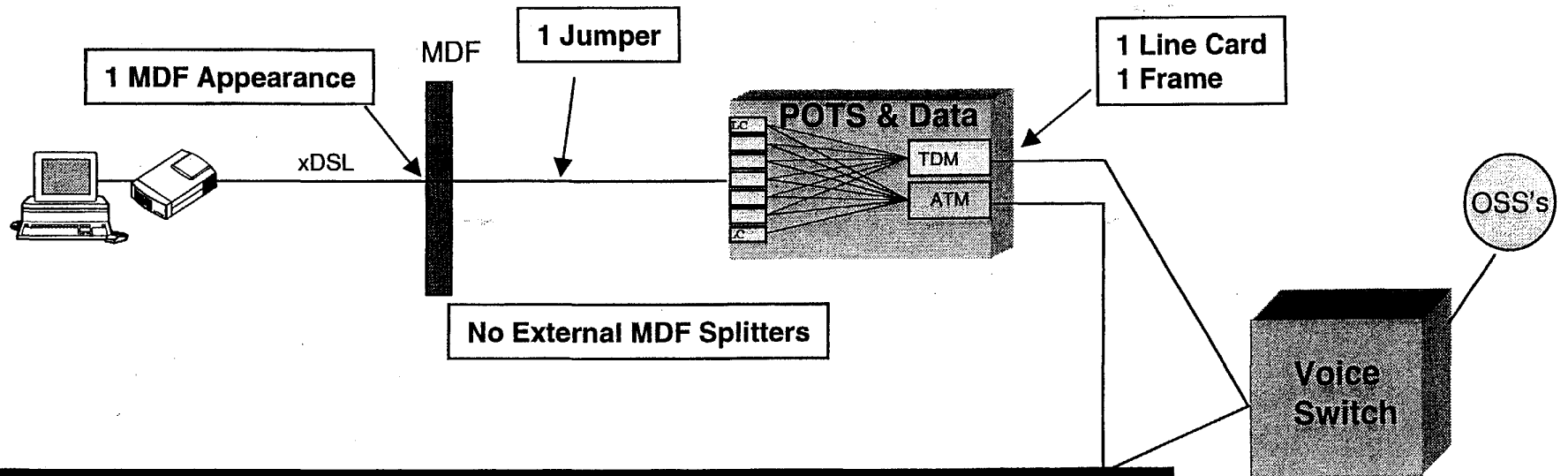


**UE 9000 ADSL/G.Lite leverages existing operations  
==> Reducing costs**

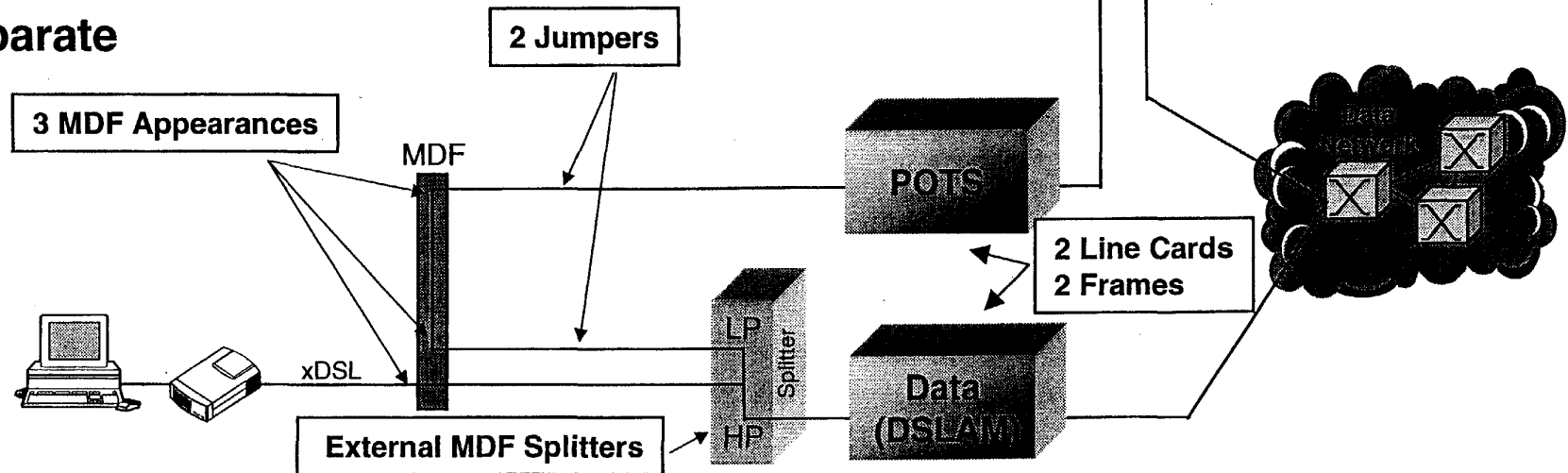
June 3, 1999

# Network Components For Voice & Data Service

## Integrated



## Separate



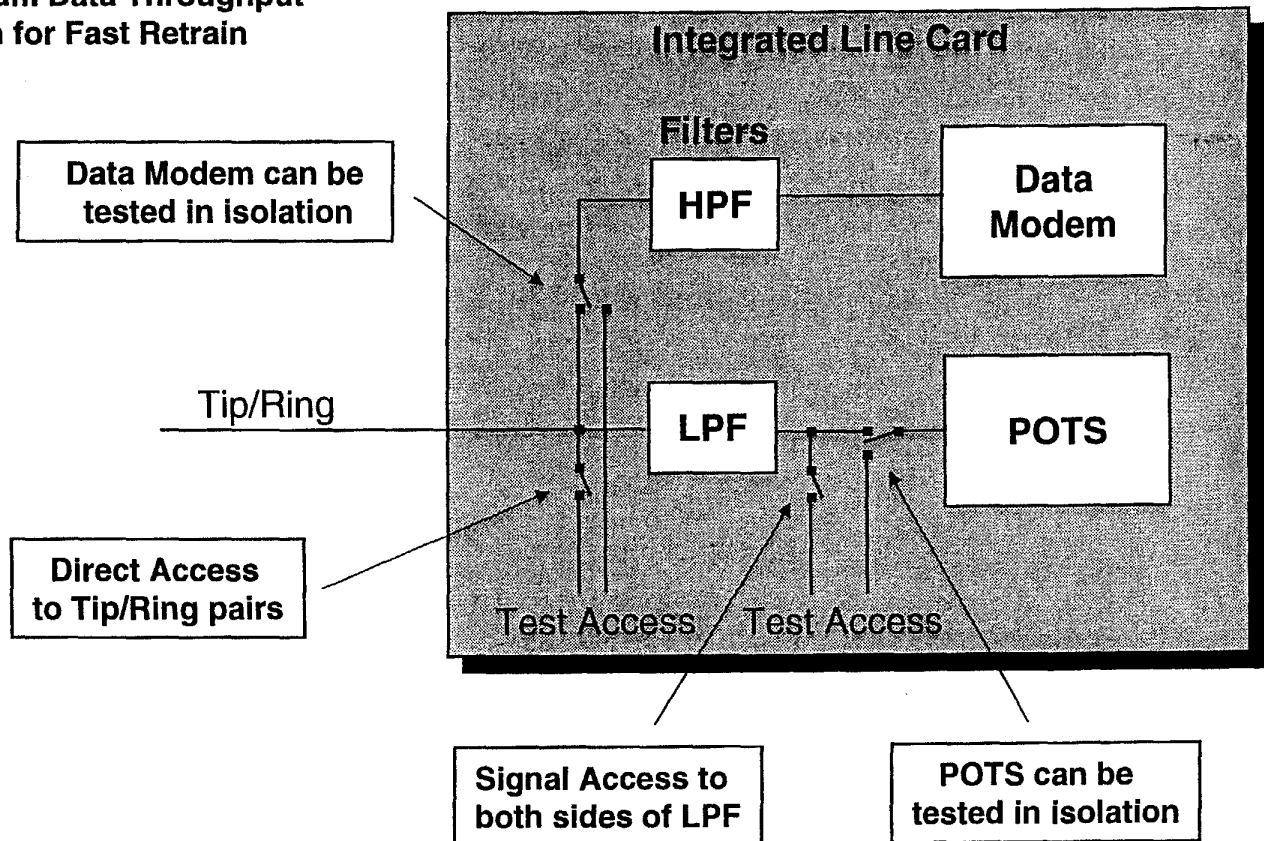
# Value of Integrated Line Cards

## Special Features:

- Filters are optimized for maximum Data Throughput
- Ringing and Off-Hook Detection for Fast Retrain
- Power-Line Cross Protection

## Testing:

- Maximum Test Flexibility
- Coordinated Testing



Integrated voice and data line cards reduce the complexity of testing and troubleshooting circuits